WHAT IS CLAIMED IS:

1. A purified arabinogalactan composition isolated from *Astragalus membranaceus*, especially from the roots of *Astragalus membranaceus*.

2. The purified arabinogalactan composition of Claim 1 where the *Astragalus membranaceus* is *A. membranaceus* Bge. var. *mongholicus* (Bge.) Hsiao or *A. membranaceus* (Fisch.) Bge.

3. The purified arabinogalactan composition of Claim 1 or 2 that is isolated from *Astragalus membranaceus* plants grown in Inner Mongolia or Shanxi province, Peoples' Republic of China, especially the former.

4. The purified arabinogalactan composition of any of Claims 1 to 3 where the *Astragalus membranaceus* plants are two-year old *Astragalus membranaceus* plants.

5. The purified arabinogalactan composition of any of Claims 1 to 4 having a weight average molecular weight of 20 kiloDaltons to 60 kiloDaltons.

6. The purified arabinogalactan composition of any of Claims 1 to 5 having an arabinose/galactose ratio of at least 1.5.

7. The purified arabinogalactan composition of any of Claims 1 to 6 having an endotoxin content of not more than 1.0 EU/mg.

8. An arabinogalactan protein composition, having a weight average molecular weight of at least 100 kiloDaltons, isolated from a purified arabinogalactan composition of any of Claims 1 to 7.

9. An aqueous intravenously injectable arabinogalactan formulation comprising:

(a) a therapeutically effective amount of the purified arabinogalactan composition of any of Claims 1 to 7 or the arabinogalactan protein composition of Claim 8; and

(b) an aqueous intravenously injectable excipient.

10. A method of treating a disease state in a mammal capable of treatment by administration of the purified arabinogalactan composition of any of Claims 1 to 7 or the arabinogalactan protein composition of Claim 8, comprising intravenously administering to the mammal an effective amount of the purified arabinogalactan composition of any of Claims 1 to 7, the arabinogalactan protein composition of Claim 8, or the aqueous intravenously injectable arabinogalactan formulation of Claim 9.

11. The method of Claim 10 wherein the method is a method of stimulating hematopoiesis, inducing the proliferation or maturation of megakaryocytes, stimulating the production of IL-1β, IL-6, TNF-α, IFN-γ, GM-CSF, or G-CSF, stimulating the production or action of neutrophils, treating neutropenia, anemia, or thrombocytopenia, accelerating recovery from exposure to cytotoxic agents or radiation, treating cachexia, emesis, or drug withdrawal symptoms, or modifying biological responses or protecting hepatic cells in hepatitis B.

12. The method of Claim 11 where the method is a method of stimulating hematopoiesis, inducing the proliferation or maturation of megakaryocytes, stimulating the production of IL-1β, IL-6, TNF-α, IFN-γ, GM-CSF, or G-CSF, stimulating the production or action of neutrophils, or treating neutropenia, anemia, or thrombocytopenia.

13. The method of any one of Claims 10 to 12 where the mammal is a human.

14. The method of Claim 12 or 13 where the mammal is suffering from bone marrow suppression.

15. The method of Claim 14 where the bone marrow suppression is the result of cancer chemotherapy or radiation therapy.

16. The method of any one of Claims 10 to 15 further comprising the administration of at least one other therapeutic agent.

17. The method of Claim 15 where the at least one other therapeutic agent is a therapeutic agent capable of stimulating hematopoiesis.

18. The method of Claim 17 where the at least one other therapeutic agent is selected from erythropoietin, thrombopoietin, granulocyte colony stimulating factor, or IL-3.

19. A method of producing the purified arabinogalactan composition of Claim 1, comprising:

(a) extracting from *Astragalus membranaceus* an aqueous extract containing an arabinogalactan composition;

(b) adding to the aqueous extract from step (a) sufficient lower alkanol to precipitate the arabinogalactan composition, and isolating the precipitated arabinogalactan composition;

(c) dissolving the precipitated arabinogalactan composition from step (b) in water to form an arabinogalactan composition-containing solution;

(d) treating the arabinogalactan composition-containing solution from step (c) to remove materials having a molecular weight less than the molecular weight of the arabinogalactan composition;

(e) purifying the arabinogalactan composition-containing solution from step (d) by ion exchange chromatography; and

(f) isolating the purified injectable arabinogalactan composition from the purified arabinogalactan composition-containing solution from step (e).

20. A method of producing the arabinogalactan protein composition of Claim 8, comprising

(a) subjecting an aqueous solution of a purified arabinogalactan composition of any one of Claims 1 to 7 to ultrafiltration through an ultrafilter having a 100 kiloDalton molecular weight cutoff; and

(b) isolating the arabinogalactan protein composition from the retentate from step (a).